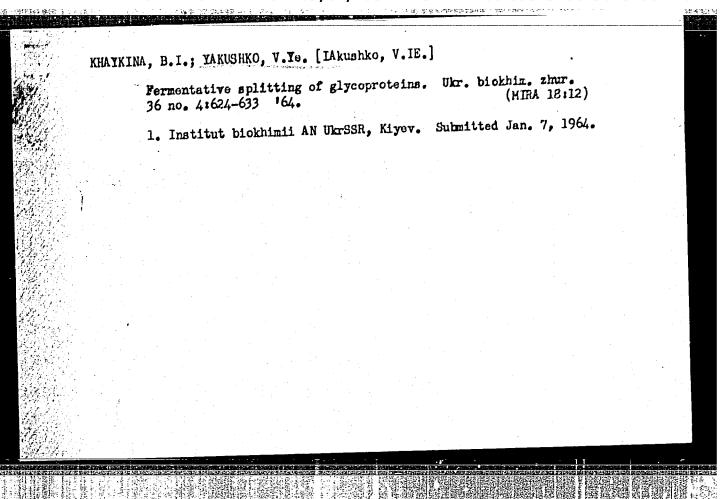ACC NR: AP7004762

SOURCE CODE: UR/0413/67/000/001/0074/0074

INVENTOR: Andrianov, K. A.; Yakushkina, S. Ye.; Vardosanidze, Ts. N.

ORG: none

TITLE: Preparative method for straight-chain high molecular weight organosilicon elastomers. Class 39, No. 190022 [announced by Institute of Heteroorganic Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 74

TOPIC TAGS: elastomer, silicone, polysiloxane, heat resistant material, organo-silicon compound, organotitanium compound

ABSTRACT: An Author Certificate has been issued for a preparative method for straight-chain high-molecular-weight organosilicon elastomers. The method involves polymeriza-tion of alkylarylcyclosiloxanes in the presence of alkali hydroxide catalysts. To produce elastomers with enhanced heat resistance, the starting material used is a mixture of arylalkylcyclosiloxanes with tris[(trimethylsiloxy)polydimethylsiloxano](8-quinolinolato)titanium or with (dimethylsiloxano)bis(8-quinolinolato)titanium. [SM]

SUB CODE: 11, 07/ SUBM DATE: 07Jun65/

Card 1/1

UDC: 678.84

KHAYKINA, B.I.; YAKUSHKO, V.Ye. [IAkushko, V.IE.]

Fermentative splitting of glycoproteins. Ukr. biokhim. zhur.
36 no. 4:624-633 '64.   (MIRA 18:12)

1. Institut biokhimii AN UkrSSR, Kiyev. Submitted Jan. 7, 1964.

S/0191/64/000/005/0067/0068

ACCESSION NR: AP4035110

AUTHOR: Kamenskiy, I. V.; Tsepelev, A. S.; Yakushina, T. V.

TITLE: Textolite based on melamine-formaldehyde resin modified with acetone

SOURCE: Plasticheskiye massy*, no. 5, 1964, 67-68

TOPIC TAGS: textolite, melamine formaldehyde resin, modified melamine formaldehyde resin, acetone modified melamine formaldehyde resin, mechanical strength, impact strength, tensile strength, breakdown voltage, electrical property, heat stability, light stability, dielectric property, water resistance

ABSTRACT: A textolite was prepared from an acetone-modified melamine-formaldehyde resin, more stable in concentrated solvents than the unmodified, made according to earlier findings (I. V. Kamenskiy, Ye. P. Smirnova, A. S. Tsepelev, Plast. massy*, no. 2, 1960), and its physical mechanical and dielectric properties were investigated. A melamine-formaldehyde resin containing 9.9% formaldehyde and 2.3% acetone was formed at 70-75 C in 35-45 minutes at a pH of 7-7.5 using 2% (on the weight of the melamine) of a 25% solution of ammonia. The textolite containing 50% resin was made from cotton sheeting pressed at 150 C under 135 kgs/cm2

Card 1/2

ACCESSION NR: AP4035110

pressure with 5 minutes/mm holding. Water resistance of the textolite increased somewhat with increase in molding temperature. It has highly decorative properties and practically does not change upon prolonged irradiation by quartz mercury vapor lamps and under natural conditions. Its impact strength is 23 $kgs.cm/cm^2$, tensile strength 843 kgs/cm^2, Martens heat stability 187 C, specific surface resistance 5.6 x 10^{13} ohm, specific volume resistance 1.4 x 10^{13} ohm cm., dielectric permeability 5.4, breakdown voltage 10.9 kv/mm and arc resistance 4 seconds (at 10 milliamps). Orig. art. has: no graphics.

ASSOCIATION: None

SUBMITTED: 00   DATE ACQ: 26May64   ENCL: 00

SUB CODE: MT,OC   NO REF SOV: 001   OTHER: 000

Card 2/2

ZEMSKOV, Pavel Ivanovich; YAKUSHINA, Yelena Nikolayevna;
KHARCHENKO, Yevgeniy Nikolayevich; ZUBENKO, I.F., dots.,
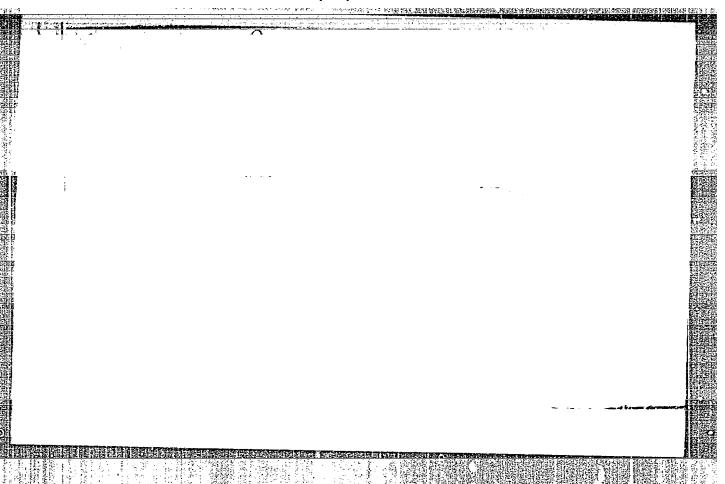otv. red.; ALYAB'YEV, N.Z., red.

[Materials and coatings for the piston rings of motor-
vehicle and tractor engines] Materialy i pokrytiia porsh-
nevykh kolets avtotraktornykh dvigatelei. Khar'kov, Izd-
vo Khar'kovskogo univ., 1963. 129 p.   (MIRA 17:8)

YAKUSHKINA, Ye.P.

Seasonal changes in the amino acid composition of mulberry leaves.
Nauch.dokl.vys.shkoly; biol.nauki no.4:174-179 '65.

(MIRA 18:10)

1. Rekomendovana kafedroy organicheskoy khimii Instituta
narodnogo khozyaystva im. C.V.Plekhanova.

YAKUSHKINA, Ye.P.

Assimilation of amino acids of food by the silkworm Bombyx
mori. Nauch.dokl.vys.shkoly;biol.nauki no.3:102-105 '58.
(MIRA 11:12)

1. Predstavlena laboratoriyey organicheskoy i biologicheskoy
khimii Moskovskogo gosudarstvennogo pedagogicheskogo instituta
imeni V.I.Lenina.
        (Amino acid metabolism) (Silkworms)

YAKUSHKO, O.F.

DEMENT'YEV, V.A., dotsent; POMANOVSKIY, N.T., dotsent; SHKLYAR, A.Kh., dotsent;
    YAKUSHKO, O.F., dotsent; RZHEUTSKIY, A.F., red.; STERZHANOV, P.M., tekhn.
    red.

    [Tourist guide to White Russia] Turistskie marshruty po Belo-
    russkoi SSR. Minsk, Gos.uchebno-p dagog.izd-vo M-va prosveshcheniia
    BSSR, 1957. 180 p.   (MIRA 11:12)

    1. Vsesoyuznyy tsentral'nyy sovet professional'kykh soyuzov.
    Turistsko-ekskursionnoye upravleniye. Minskaya ekskursionnaya
    baza.
            (White Russia--Guidebooks)

USSR / Soil Science. Genesis and Geography of Soils.   J-1

Abs Jour: Ref Zhur-Biol., No 8, 1958, 34308.

Author : Yakushko, O. F.
Inst   : Belorussian University..
Title   : Soil-Georgraphic Zoning of Belorussian SSR.

Orig Pub: Uch. zap. Belorussk. un-t, 1957, vyp. 35, 47-59.

Abstract: On the territory of BSSR, the following soil zones
          have been established: 1. peaty, strong- and med-
          ium-podzolic argillaceous and loam soils; 2. peaty,
          medium-podzolic sandy loam soils; 3. weak- and
          medium-podzolic sandy soils, often swamped; 4.
          peat-sod swampy soils; 5. alluvial-meadowy soils
          of river valleys; 6. humus-carbonaceous (peaty)
          soils on carbonaceous varieties or subsurface wat-
          ers saturated with Ca. Certain measures for the
          increase of fertility of the soils of the Republic
          are indicated. -- F. N. Sofiyeva.

Card 1/1

YAKUSHKO, O.F.

Morphology of some lakes in northern White Russia. Trudy
Geofaka BGU no.1:81-110 '58.   (MIRA 12:8)
                    (White Russia--Lakes)

YAKUSHKO, O.F.

Geomorphological observations of the northeastern part of
Dzerzhinsk District. Trudy Geofaka BGU no.2:17-20 '58.
(MIRA 13:5)

(Dzerzhinsk District (Minsk Province)--Geology, Structural)

ZHUCHKEVICH, Vadim Andreyovich; YAKUSHKO, Ol'ga Filippovna [IAkushka, O.F.];
RZHEUTSKIY, A.F. [Rzheutski, A.F.], red.; SOSNOVICH, A.I.
[Sasinovich, A.I.], tekhn.red.

[Geography of the White Russian S.S.R.; textbook for the
secondary school] Geagrafiia Belaruskai SSR; vuchebny dapa-
mozhnik dlia siaredniai shkoly. Minsk, Dziarzh.vuchebna-
pedagag.vyd-va M-va asvety BSSR, 1960. 72 p.

(MIRA 14:2)

(White Russia--Geography)

ZHUCHKEVICH, Vadim Andreyevich; YAKUSHKO, O.F.

[Geography of the White Russian S.S.R.; textbook for eight-
year schools] Geografiia Belorusskoi SSR; uchebnoe posobie
dlia vos'miletnei shkoly. Izd.3., dop. Minsk, Gos.uchebno-
pedagog. izd-vo, 1962. 91 p.   (MIRA 17:4)

KHAYKINA, B.I.; YAKUSHKO, V.Ye. [IAkushko, V.IE.]

Brain polyglucosides. Ukr. biokhim. zhur. 36 no.5:665-672
'64.   (MIRA 18:6)

1. Institut biokhimii AN UkrSSR, Kiyev.

KHAYKINA, B.I.; YAKUSHKO, V.Ye. [IAkushko, V.IE.]

Transglucosylase of the brain. Ukr.biokhim.zhur. 34 no.6:876-882
'62.
                                                      (MIRA 16:4)

1. Institute of Biochemistry of the Academy of Sciences of the
Ukrainian S.S.R., Kiev.
              (TRANSGLUCOSIDASE)   (BRAIN)

TARASOVA, A.G.; KALUGINA, A.Ya.; YAKUSHKOVA, A.Ye.

Three-column continuous action apparatus for the production of
acetic acid. Gidroliz. i lesokhim.prom. 18 no.1:24-25 '65.
(MIRA 18:3)

1. Ashinskiy lesokhimicheskiy kombinat.

YAKUSHOV, B.I. [IAkushin, B.I.]

Mobile phosphates in swamped soils developing from two-component parent materials--loam and clay. Vestsi AN BSSR.Ser.biial.nav. no.2:56-66 '59.   (MIRA 12:9)
                    (PHOSPHATES)   (SOIL CHEMISTRY)

45746

S/194/62/000/012/013/101
D201/D308

9,7200

AUTHORS: Sokolov, N. I. and Yakushov, V. M.

TITLE: Application of continuous analog computers to static d.c. and a.c. simulator computations

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1962, 65-66, abstract 12-1-130 ya (Dokl. na 4-y Mezhvuz. Konferentsii po primeneniyu fiz. i matem. modelirovaniya v razlichn. otraslyakh tekhn. Sb. 2. M., 1962, 25-38).

TEXT: It is pointed out that the use of d.c. and a.c. simulators in conjunction with continuous analogs results in quicker calculations and increases the number of problems which are solved. It is shown that, in the calculation of s.c. currents due to several simultaneous faults or s.c. currents in systems with disconnected phase, the components of continuous analogs may be used for electrical simulation of 'ideal' transformers or for automatic setting of operating conditions which satisfy the limiting conditions at

Card 1/2

Application of continuous ...

S/194/62/000/012/013/101
D201/D308

the damaged point. The possibility of using these components for the reproduction of nonlinear static load characteristics is investigated. It is also shown that it is possible to take into account the real transformation coefficient when working with static a.c. simulator and to take into account the mutual inductance between the lines in null-to-sequence circuits, when the simulators are coupled with analogs. 2 references. /‾Abstracter's note: Complete translation._/

Card 2/2

YAKUSHOVA, A. F.

Yakushova, A. F. "On the protective role of surfacr formations in karst processes",
Trudy Laboratorii gidrogeol. problem im. akad. Savarenskogo (Akad. nauk SSSR, Otd-niye
geol.-geogr. nauk), Vol. III, 1948, p. 348-52, - Bibliog: 5 items.

SO: U-2888, 12 Feb. 53, (Letopis' Zhurnal 'nykh,Statey, No. 2, 1949).

YAKUSHOVA, A.F.

Yakushova, A.F. "Karst and hydraulic construction", In the collection: Karstovedeniye, Issue 4, Molotov, 1948, p. 3-13, - Bibliog: 18 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

YAKUSHOVA, A.F., dotsent

Karst phenomena in Paleozoic carbonate regions of the East European Plain. Uch. zap. Mosk. un. no.136:55-109 '49.   (MIRA 11:10)

(East European Plain--Karst)

YAKUSHOVA, A.F.

The most recent movements of the earth's crust in the north-
western and wetern Caspian Sea region. Vest.Mosk.un. 10 no.10:
15-29 O '55.   (MIRA 9:4)

1.Kafedra dinamicheskoy geologii.
        (Caspian Depression--Earth movements)

YAKUSHOVA, Aleksandra Fedorovna, kandidat geologo-mineralogicheskikh
nauk; GORSHKOV, G.P., doktor geologo-mineralogicheskikh nauk,
nauchnyy redaktor; SKONECHNAYA, A.D., redaktor; YUSFINA, N.L.
tekhnicheskiy redaktor.

[How mountains are destroyed] Kak razrushaiutsia gory. Moskva,
Goskul'tprosvetizdat, 1957. 17 p. and 6 plates in portfolio.
                                                    (MLRA 10:5)

                        (Mountains)

YAKUSHEVA, A.F.

3(5)

PHASE I BOOK EXPLOITATION   SOV/1484

Gorshkov, Georgiy Petrovich, and Aleksandra Fedorovna Yakusheva

Obshchaya geologiya (General Geology) Moscow, Izd-vo Mosk. univ.,
1957. 465 p. 18,000 copies printed.

Ed. (Title page): M.M. Charygin; Ed. (Inside book); K.A. Shilova;
Tech. Ed.: V.P. Gur'yanov

PURPOSE: This work is intended as a textbook for students at the
university level.

COVERAGE: This book constitutes an introductory course in geology,
and is based on a series of lectures given by the authors at the
geographical and geological faculties of the University of Moscow.
The book is published under the auspices of the Ministry of Higher
Education of the USSR as a textbook for state universities. Part I
contains basic information on the forms, composition, dimensions,

Card 1/11

General Geology   SOV/1484

.   and age of the earth. Part II describes exogenic processes, and
     Part III, endogenic processes. Chapters 1-3 and 11-17 were
     written by G.P. Gorshkov, Doctor of Geological and Mineralogical
     Sciences, and Chapters 4-10 and 18 by A.F. Yakushova, Docent
     with the Division of Dynamic Geology of the Moscow State
     University and a Candidate of Geological and Mineralogical Sciences.
     The authors express their gratitude to Academician D.I. Shcherbakov
     and M.M. Charygin of the Department of Geology of the Leningrad
     State University imeni A.A. Zhdanov for their assistance in
     reviewing and editing their book. There are 246 diagrams,
     36 tables, and 185 Soviet references.

TABLE OF CONTENTS:

PART I

GENERAL PROBLEMS

Card 2/11

YAKUSHOVA, A.F.

Formation of certain thermal springs in Red Basin (Chinese People's Republic). Nauch.dokl.vys.shkoly; geol.-geog.nauki no.1:222-225 '58.
(MIRA 12:2)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra dinami-cheskoy geologii.
(Red Basin--Springs)

YAKUSHOVA, A.F.

Neotectonics of eastern and central Ciscaucasia.   Sov. geol. 3 no.8:
75-86 Ag '60.   (MIRA 13:9)

1. Moskovskiy gosudarstvennyy universitet im. V.M. Lomonosova.
     (Caucasus, Northern--Geology, Structural)

SEMENOV, M.P.; SOKOLOV, D.S.; SHANTSER, Ye.V.; YAKUSHEVA, A.F.

Geological conditions in the Yangtze Valley from the point of view
of hydraulic engineering. Trudy Lab. inzh. gidrogeol. VODGEO
no. 3:58-104 '60.   (MIRA 14:4)
          (Yangtze Valley—Geology)   (Hydraulic engineering)

Труды Лаб. ЮЖ

YAKUSHOVA, A.F.; CHISTYAKOV, A.A.

Geomorphological features of recent uplifts. Vest.Mosk.un.Ser.4:
Geol. 15 no.2:27-37 Mr-Ap '60.   (MIRA 14:4)

1. Kafedra dinamicheskoy geologii Moskovskogo universiteta.
                    (Geology, Structural)

BARSANOV, G.P.; BOGDANOV, A.A.; YERMAKOV, N.P.; KRASHENINNIKOV, G.F.;
    SERGEYEV, Ye.M.; SMIRNOV, V.I.; YAKUSHOVA, A.F.

    International geological congress in Copenhagen. Vest. Mosk. un.
    Ser. 4: Geol. 15 no.6:3-12 N-D '60.   (MIRA 14:1)
                        (Geology--Congresses)

YAKUSHOVA, Aleksandra Fedorovna, kand. geologo-mineralog. nauk;SMIRNOVA,
N.P., red.; NAZAROVA,A.S., tekhn. red.

[Formation and disintegration of mountains] Obrazovanie i razru-
shenie gor. Moskva, Izd-vo "Znanie," 1961. 39 p. (Vsesoiuznoe
obshchestvo po rasprostraneniiu politicheskikh i nauchnykh
znanii. Ser. 12, Geologiia i geografii, no.9)   (MIRA 14:5)
                         (Mountains)

GORSHKOV, Georgiy Petrovich, prof; YAKUSHOVA, Aleksandra Fedorovna,
     prof.; BELYAKOVA, Ye.V., red.; LAZAREVA, L.V., tekhn. red.

[General geology] Obshchaia geologiia. Izd.2. Moskva, Izd-vo
Mosk. univ., 1962. 563 p.   (MIRA 15:4)

1. Kafedra dinamicheskoy geologii Moskovskogo gosudarstvennogo
universiteta (for Gorshkov, Yakushova).
                    (Geology)

YAKUBHOVA, A.F.

Methods for structural and geomorphological investigations in prospecting for oil and gas. Vest. Mosk. un. Ser. 4: Geol. 19 no.3:13-29 My-Je '64.

(MIRA 17:12)

1. Kafedra dinamicheskoy geologii Moskovskogo universiteta.

YAKUSHOVA, A.F.; SYAGAYEV, N.A.; CHISTYAKOV, A.A.; KONDAKOVA, L.P.;
     FILATOV, O.M.; ULITSKIY, Yu.A.; SYRNEV, I.P.

Main characteristics of the geomorphology and recent tectonics in
the Volga-Don territory. Trudy NILneftegaza no.13:171-186 '65.
                                              (MIRA 18.9)

SUKACHEV, V.N.; BOGDANOV, A.A.; IVANOVA, I.K.; LAZUKOV, G.I.; NIKOLAYEV, N.I.;
    YAKUSHOVA, A.F.; GELLER, S.Yu.; GRICHUK, V.P.; KOLESNIK, S.V.;
    SOKOLOV, N.N.; LICHKOV, B.L.; GORETSKIY, G.I.; SHCHUKIN, I.S.;
    BYKOV, V.D.; SAUSHKIN, Yu.G.; GLAZOVSKAYA, M.A.; GVOZDETSKIY, N.A.;
    TUSHINSKIY, G.K.

Konstantin Konstantinovich Markov's role in the creation and develop-
ment of the paleogeography of the anthropogenic (the Quaternary)
period; on his 60th birthday and the 40th anniversary of scientific
work. Izv. Vses. geog. ob-va 97 no.4:377-379 Jl-Ag '65.

GUBCHEVSKIY, P.V., inzh.; YAKUSHOVA, K.A., inzh.

Equipment for the manufacture of large ingot molds in mechanized plants. Stal' 21 no.12:1134-1137 D '61.   (MIRA 14:12)

1. Magnitogorskiy metallurgicheskiy kombinat.
              (Ingot molds)
              (Foundries—Equipment and supplies)

GUBCHEVSKIY, P.V., inzh.; KAZANOVSKIY, L.V., inzh.; NIKOL'SKIY, M.A., inzh.;
    YAKUSHOVA, K.A., inzh.

Casting of slab molds for large ingots of liquid blast furnace
cast iron. Stal' 23 no.3:274-278 Mr '63.   (MIRA 16:5)

1. Magnitogorskiy metallurgicheskiy kombinat i Ufaleyskiy
metallurgicheskiy zavod.
                        (Ingot molds) (Iron founding).

L 13707-63   EWT(d)/FCC(w)/BDS   AFFTC   IJP(C)

ACCESSION NR: AP3003506   s/0020/63/151/001/0076/0079

AUTHOR: Yakut, L. I.   52

TITLE: Control of convergence of difference schemes

SOURCE: AN SSSR. Doklady*, v. 151, no. 1, 1963, 76-79

TOPIC TAGS: finite-difference equation, Banach space, bounded operator

ABSTRACT: The bounded operators $A_n(t)$ defined in a rather narrow subspace E_1 of a Banach space E are required to satisfy the uniform condition (1) of the enclosure. If L_n is the subspace on which $A_n(t)$ vanishes, set $S_n = E_1/L_n$. The following problem is considered: under what conditions the differential equation $du/dt + A(t)u = f(t)$ in E reduces to the finite-difference equation (2) defined in S_n. The results obtained are applicable to the proof of the convergence of stable explicit difference schemes for boundary-value problems of the form (3). "The author expresses his sincere gratitude to S. G. Kreyn under whose direction the work was completed." The paper was presented by Academician I. G. Petrovskiy on 22 January 1963. Orig. art. has: 11 formulas.

ASSOCIATION: none
SUBMITTED: 19Jan63   DATE ACQ: 30Jul63   ENCL: 01
SUB CODE: MM   NO REF SOV: 009   OTHER: 005
Card 1/1/

L 16489-65   EWT(d)   ESD(dp)/ESD(ge)/AFWL/IJP(c)
ACCESSION NR: AP4041393   S/0020/64/156/006/1304/1307

AUTHOR: Yakut, L. I.

TITLE: Lax theorems for nonlinear evolutionary equations

SOURCE: AN SSSR. Doklady*, v. 156, no. 6, 1964, 1304-1307

TOPIC TAGS: finite difference method, finite difference scheme, evolutionary
equation, nonlinear equation, ... approximate method, partial
differential equation

ABSTRACT: Because previous generalizations of Lax's theorem about conver-
gence of stable difference schemes permit discussion of only special types of
nonlinearities, and have stability conditions formulated so that they can be verified
... ... the presence of the principle of the maxi-
... ...

linear principal parts

$$du/dt + A(t)u = \varphi(t, u) \qquad (1)$$

Card 1/3

L 10459-65
ACCESSION NR: AP4041393

(u(t) is the function sought) and quasilinear equations

$$du/dt + B(t, u)u = 0. \qquad (2)$$

Initially discussing equations of the form

$$du/dt + A(t)u = f(t) \quad (0 < t \leqslant T), \qquad (3)$$

where A't is, for all $t \in [0, T]$, a linear unbounded closed operator defined in a Banach space E with dense domain of existence D(A) independent of t, and f(t) is a given function satisfying the initial condition

$$u(0) = u_0, \qquad (4)$$

the author states, without proof, conditions for convergence in norm of the solutions of finite-difference analogue to the solutions of problems (3)-(4) and (1)-(4). The author also states, also without proof, conditions under which the finite-difference analogue of the first boundary-value problem for equations of the form

$$\partial u/\partial t + \mathscr{T}(x, t, u)u = 0, \qquad (10)$$

where $\mathscr{T}(x, t, u)$ is a quasilinear elliptic operator with coefficients depending only

Card 2/3

ACCESSION NR: AP4041393

on the unknown function u, converges to the solution of equation (10) with the initial condition $u(0, x) = u_0(x)$,

and the boundary conditions. "The author would like to express his great gratitude to ... Kreyn under whose direction this paper was written. Orig art has 10 equations

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University).

SUBMITTED: 30Jan64   ENCL: 00

SUB CODE: MA   NO REF SOV: 005   OTHER: 002

Card   3/3

L 13707-63   EWT(d)/FCC(w)/BDS   AFFTC   IJP(C)

ACCESSION NR: AP3003506   8/0020/63/151/001/0076/0079

AUTHOR: Yakut, L. I.   52

TITLE: Control of convergence of difference schemes

SOURCE: AN SSSR. Doklady*, v. 151, no. 1, 1963, 76-79

TOPIC TAGS: finite-difference equation, Banach space, bounded operator

ABSTRACT: The bounded operators $A_n(t)$ defined in a rather narrow subspace E_1 of a Banach space E are required to satisfy the uniform condition (1) of the enclosure. If L_n is the subspace on which $A_n(t)$ vanishes, set $S_n = E_1/L_n$. The following problem is considered: under what conditions the differential equation $du/dt + A(t)u = f(t)$ in E reduces to the finite-difference equation (2) defined in S_n. The results obtained are applicable to the proof of the convergence of stable explicit difference schemes for boundary-value problems of the form (3). "The author expresses his sincere gratitude to S. G. Kreyn under whose direction the work was completed." The paper was presented by Academician I. G. Petrovskiy on 22 January 1963. Orig. art. has: 11 formulas.

ASSOCIATION: none
SUBMITTED: 19Jan63   DATE ACQ: 30Jul63   ENCL: 01
SUB CODE: MM   NO REF SOV: 009   OTHER: 005
Card 1/2

SOURCE: Ref. zh. Matematika, Abs. 3B. i

AUTHOR: Yakut, L. I.

TITLE: On the convergence of finite-difference methods of solution of evolutional equations

CITED SOURCE: Rr. Seminara po funkts. analizu. Voronezhsk. un-t, vy*p. 7,

homogeneous

The known Laksi theorem is developed

Card 1/2

ACCESSION NR: AR4046315

SUB CODE: MA
Card 2/2

YAKUTA, K.I.

SOV/137-59-2-4276

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 279 (USSR)

AUTHOR: Yakuta, K. I.

TITLE: Limitations in the Employment of Stamping Dies Made of Hard Alloys
            (Granitsy tselesoobraznogo primeneniya tverdosplavnykh shtampov)

PERIODICAL: V sb.: Elektr. i ul'trazvuk metody obrabotki materialov. Leningrad,
            Lenizdat, 1958, pp 187-194

ABSTRACT: According to foreign and domestic experience, the over-all dura-
            bility (D) of hard-alloy dies (HAD) is 20 - 30 times greater than that of
            steel dies, whereas their D between regrinding operations is 8 times
            as great. Compared with steel dies, the initial cost of the HAD's is
            2 - 3 times as great; the cost of their regrinding exceeds that of steel
            dies by approximately 60%. On the strength of these data the follow-
            ing diagrams were plotted: 1) Relative cost of carbon, alloyed, and
            HAD's as referred to their total service life; 2) the D of the three
            types of dies; 3) the cost of the dies per 1000 manufactured articles.
            Graphs are also given for the above dies representing variations in
            cost during retooling of blanking and drawing dies in accordance with
            the complexity and thickness of articles to be manufactured. Limits

Card 1/2

SOV/137-59-2-4276

Limitations in the Employment of Stamping Dies Made of Hard Alloys

for economically rational employment of blanking and drawing HAD's consistent
with the conditions of mass production were established per thousand manufactured
articles.

A. F.

Card 2/2

MANAYEVA, Ol'ga Vasil'yevna; YAKUTA, Kira Ivanovna; GAVRILOV, R.A.,
red.; SOBOLEVA, Ye.M., tekhn. red.

[Economic calculations in the manufacture of electric and
vacuum devices] Ekonomicheskie raschety v elektrovakuumnom
proizvodstve. Moskva, Gosenergoizdat, 1963. 186 p.
(MIRA 16:8)

(Electric equipment industry) (Electron tubes)

ACC NR: AR6035573   SOURCE CODE: UR/0044/66/000/009/V046/V046

AUTHOR: Yakutavichyus, A. Yu.

TITLE: Application of the space of tests for analysis of the code method of pattern recognition

SOURCE: Ref. zh. Matematika, Abs. 9V314

REF SOURCE: Sb. Avtomatika i vychisl. tekhn. Vil'nyus, 1965, 20-22

TOPIC TAGS: pattern recognition, test, statistics, code method, test space, ccmPuter coding

ABSTRACT: A method is studied which is based on the recognition of a series of pattern cross-sections with definite combinations of the repetition of black and white sectors (codes). There are S number of cross-sections (columns) and K number of codes. Thus, the pattern is a vector with coordinates $a_{ij} = 1$ or 0 $(i = 1, \ldots, s; j = 1, \ldots, k)$. The reference vectors e_v $(v = 1, \ldots, m;$ m is the number of classes) are selected from statistics. The Hemming distance is used and the analysis of distances is carried out in subspace s of the measurements (from the basic space ks, the coordinate axes where $a_{ij} = 1$ are selected). Data

Card 1/2   UDC: 51:681.14:155

ACC NR: AR6035573

of the analysis of 10 typewritten digits on the basis of 100 reproductions of each digit are presented. All the reproductions of digits 0, 1, 2, 3 are recognized on the basis of reproductions of digits 5, 6 and 9—98; for digits 4, 7, 8, the results are 99, 93, 96, respectively. There is a bibliography of 3 titles. [Translation of abstract]

[DW]

SUB CODE: 09/

Card 2/2

YAKUTILOV, M.

Effect of the degree of erosion of soils on the yield of grain
and oilseed crops in mountainous and piedmont regions of Tajikistan.
Dokl. An Tadzh. SSR 2 no. 5:31-36 '59.   (MIRA 13:12)

1. Institut pochvovedeniya AN Tadzhikskoy SSR. Predstavleno
akademikom AN Tadzhikskoy SSR . I.N. Antipovym-Karatayevym.
     (Tajikistan--Crop yields)   (Erosion)

USSR / Soil Science.   Soil Genesis and Geography.   J

Abs Jour: Ref Zhur-Biol., No 2, 1959, 6036.

Author   : Yakutilov, M. R.
Inst   : Uzbek University.
Title   : The Soil Cover of Bayram-Ali Alluvial Fan in
           the Great Kara-Kum Canal Zone.

Orig Pub: Sb. stud. rabot Uzb. un-ta, 1956, vyp. 1, 91-94.

Abstract: The Bayram-Ali alluvial fan is one of the ter-
          races in the Murgab River delta. The earth here
          has been irrigated in the past. It is classif-
          ied as suitable for cotton after non-complex
          ameliorations have been applied.

Card 1/1

YAKUTILOV, M.R.

Soil erosion in Fayzabad. Izv. Otd. est. nauk AN Tadzh. SSR no. 24:47-56 '57.   (MIRA 11:10)

1. Institut pochvovedeniya melioratsii i irrigatsii AN Tadzhikskoy SSR.
(Fayzabad District--Erosion)

YAKUTILOV, M.R.

Preliminary division of western Tajikistan into soil erosion
districts. Dokl.AN Tadzh.SSR 1 no.4:27-31 '58.   (MIRA 13:4)

1. Institut pochvovedeniya AN Tadzhikskoy SSR. Predstavleno
akademikom AN Tadzhikskoy SSR I.N.Antipovym-Karatayevym.
         (Tajikistan--Erosion)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 90

[unreadable] computer input device, information processing

ABSTRACT: This Author Certificate presents a method for inputting information [unreadable] the information represented in the form, for example, of a

$C_7 - 1$ $2/2$

YAKUTIN, L., starshiy matros

Toilers of the sea. Starsh.-serzh. no.6:21 Je '62.   (MIRA 15:7)
(Diving, Submarine)

OVCHARENKO, I.Ye.; TUNITSKIY, L.N.; YAKUTIN, V.I.

Vibration constants and dissociation energy of the BeCl molecule.
Opt. i spektr. 8 no.6:746-751 Je '60.   (MIRA 13:8)
                    (Silicon chloride--Spectra)

5.4130

AUTHORS: Ovcharenko, I.Ye., Tunitskiy, L.N. ar⁻ Yakutin, V.I.

TITLE: Analysis of the Fine Structure of the SiCl Molecular Bands

ABSTRACT: Four electron states ($X^2\Pi$, $B^2\Sigma$, $C^2\Delta$ and $D^2\Sigma$) of the SiCl molecule are known (Refs 1-4).   The vibrational constants of these four states were reported by Jevons (Ref 4) and are listed in Table 1;   the constants with question marks were considered unreliable by Jevons. The present paper reports new values of the rotational constants of the $B^2\Sigma$, $X^2\Pi_{3/2}$, $X^2\Pi_{1/2}$ states, derived from the rotational analysis of the (1, 0), (0, 0) and (0, 1) bands of the $B^2\Sigma \to X^2\Pi$ transition. The spectra of SiCl were excited in a quartz pulse-discharge tube, similar to one used earlier (Ref 5) and shown schematically in a figure on p 746.   The tube was filled with a mixture of silicon tetrachloride and helium.   The spectra were photographed with a DFS-3 spectrograph in the third order (dispersion of 0.57 Å/mm, resolving power of 432 000), and measured with a IZA-2 comparator (an iron arc spectrum was used as the wavelength standard, cf. Table 2).

Card 1/2

80541

8/061/60/008/06/C02/024
E201/E691

$\mathcal{W}$

Analysis of the Fine Structure of the SiCl Molecular Bands

For the $X^2\Pi_{1/2}$ state the following rotational constants were
obtained: $B_1 = 0.2550$, $\alpha = 0.0016$, $D_e = 2.341 \times 10^{-7}$,
$a = 0.004 \pm 0.001$ cm^{-1}; for $X^2\Pi_{3/2}$: $B_2 = 0.2556$, $\alpha = 0.0016$,
$D_e = 2.355 \times 10^{-7}$ cm^{-1}; for $B^2\Sigma$: $B = 0.2782$, $\alpha = C.0015$,
$D_e = 1.752 \times 10^{-7}$ cm^{-1} (Table 3). The wavenumbers of the (0.1),
(0.0), (1.0) lines of the $^2\Sigma \rightarrow {}^2\Pi_{1/2}$ transition were respectively
33662.0, 34193.6, 34892.2 cm^{-1}; for the $^2\Sigma \rightarrow {}^2\Pi_{3/2}$ they were
33455.7, 33987.1, 34685.8 cm^{-1}, respectively. There are 1 figure,
3 tables and 6 references, of which 2 are Soviet, 3 English and 1 German.

SUBMITTED: July 20, 1959

Card 2/2

YAKUTINA, K.I., inzh.-ekonomist

Economic officiency of using electric spark machining in making dies. Trudy LIEI no.18:121-139 '57.   (MIRA 12:9)
      (Dies (Metalworking)) (Electric metal cutting)

YAKUTINA, M. F. Cand Med Sci -- (diss) "Vessels and nerves of uterine scar."

Mos, 1958. 13 pp (Min of Health USSR. Central Inst for the Advanced Training

of Physicians), 200 copies (KL, 52-58, 108)

-140-

YAKUTKINA, N.A., kand.med.nauk

Dehiscence of the tympanic cavity in children. Zhur. ush., nos.
i gorl. bol. 20 no.1:48-53 Ja-F '60.
(MIRA 14:5)

1. Iz kafedry normal'noy anatomii (zav. - zasluzhennyy deyatel'
nauki prof. M.S.Spirov) Kiyevskogo ordena Trudovogo Krasnogo Znameni
meditsinskogo instituta imeni akademika A.A.Bogomol'tsa.
(EAR—DISEASES)

YAKUTKINA, N.A., kand.med.nauk

Tuba auditiva in man at an early age. Zhur. ush., nos. i gorl.
bol. 21 no.5:66-69 S-O '61.   (MIRA 15:1)

1. Iz kafedry normal'noy anatomii (zav. - zasl. deyatel' nauki
prof. M.S.Spirov) Kiyevskogo Ordena Trudovogo Krasnogo Znameni
meditsinskogo instituta imeni A.A.Bogomol'tsa.
               (EUSTACHIAN TUBES)

TOPIC TAGS: food poisoning, microorganism contamination,
industrial medicine

ABSTRACT: Cases of staphylococcus food poisoning following

products (butter, condensed milk, or prepared products ... ...), ...
used in pastry production. An analysis of the sugar and moisture ...

favorable for staphylococci multiplication and toxin production.
Also, improper storage of pastry products found in some bakery shops
may contribute to the growth of toxic staphylococci. Orig. art. has:
None.

... ... Institut im. M. I. Kalinina

YAKUTOV, N. A.

YAKUTOV, N. A. -- "Problems and Questions in the Process of Teaching Physics in the Secondary Schools (Classes VIII-X)." Cand Pedagog Sci, Sci Res Inst of Teaching Methods, Acad of Pedagogical Sciences RSFSR, Moscow 1953. (Referativnyy Zhurnal--Fizika, Jan 54

SO: SUM: 168, 22 July 1954

CA

YAKUTOVICH, L.

Increase in the content of light fractions in cracked gasoline. L. Potolovskii and L. Yakutovich. *Neftyanik* 6, No. 7, 47-9(1936).—The operations consisted in a consecutive lowering of the content of the butylene-butane fraction and an investigation of the obtained gasolines. The fractions were removed by the freezing-out method with Podbielniak's app. and the gasolines were stabilized in the usual manner. The results are tabulated. — A. A. Bochtlingk

BI-5, *ferrous metallurgy*

Br. ab. YAKUTOVICH, M. S.

Residual tension in cementation steel discs tempered at temperatures below the Ac 1 point, E. S. Yakovleva and M. S. Yakutovich (U. tch. Phys., USSR, 1948, 18, 207—210).—The magnitude and distribution of stresses arising in cementation discs of a low-C steel tempered from below the Ac3 point have been determined. Steel discs (0·12% of C) with cementite to a depth of 0·7—0·8 mm. were ground to 49×13×3·5 mm., heated to 810° for 10 min., quenched in H_2O, and examined by Stablein's method using an optometer: reproducibility of results was 4 μ. The sum of the tensile stresses was found to be equal to the compressive stress with ~3%. — W. Hrokka.

The kinetics of the mechanical twinning of crystals. —Yakutovich and R. Yakovleva. *J. Tech. Phys. U.S.S.R.) 5, 1171-7(1935).*—The dependence of twinning upon the speed of increase of external forces and upon the effect of a repeated action of forces on an already twinned sample in crystals of Sn, Bi and calcite were studied. Local deformations cause formation of twins having a wedge-shaped form far beyond the limits of the deformed zone; the greater the angle of crystallographic slip the greater the vertex angle of the wedge. The length of twins is greater from shock deformation than from static owing to compensation by scattering of the first impulse in the energy of the elastic wave spreading from the place of shock, and possibly to the increase of the impulse through increase of the elastic limit. The twin formed at the point of excessive stress spreads with approx. the speed of sound in the direction of slip. The energy of the first impulse of twinning is scattered partly on the edges and partly remains in a potential form in the twinned region.   P. H. Rathmann

Jump-like deformation of zinc crystals. E. S. Yakov-
eva and M. V. Yakutovich. J. Exptl. Phys. (U.S.S.R.)
A., 1744. The jump-like deformation is a re-
sult of change of the kinetics of slip with temp. In stretch-
ing a Zn crystal the deformation of one jump is distributed
along the whole length of the crystal. The traces of slip,
weakly marked after the first jump, become sharp in the
following jumps. The force diagram of a single jump
has 3 parts: (1) the resistance to deformation falls below
the applied force; (2) the resistance rises above the applied
force and (3) the remaining resistance is reduced during
applied force. The remaining resistance of the crystal becomes
test, and when the resistance of the crystal becomes
equal to the applied force, the jump is repeated. The
remaining resistance can be explained by the exhaustion
of "active" nonhomogeneities and weakening by their
restoration.   P. H. Rathmann

METALLURGICAL LITERATURE CLASSIFICATION

YAKUTOVICH, M. V.

Studying the Process of Plastic Deformation b Means of a Microinterferometer in
order to Investigate the Nature of the Sliding Process in Metals.

M: Problemy Sovremennoy Fiziki, 1936, Moscow, Leningrad

Soviet Source:
Abstracted in USAF "Treasure Island" Report No. 60438, on file in Library of Congress,
Air Information Division.

CA

9

PROCESSES AND PROPERTIES INDEX

Studies of the recrystallization of copper-zinc alloys with small zinc content. A. I. Kitaigorodskii. J. Tech. Phys. (U.S.S.R.) 6, 200-07(1936).—By a comparison of the crystns. of melts in a N₂ atm. and in the presence of oxidizing agents the effect of the mech. admixt. of Cu₂O was observed and corrected. The curve of the temps. of recrystn. was the same as that of complete tempering with a max. at about 18.2% Zn in the brass. Traces of P do not affect the form of the curve of the temp. of recrystn. The recrystn. process depends on the no. of centers formed per unit time and the rate of growth of the grains, but these 2 factors are independent of one another. Remarks on the

paper of A. I. Kitaigórodskii. M. V. Yakutovich.—Ibid. 377.—The rate of growth is held to be a function not of surface energy but of the height of the energy barrier.
F. H. Rathmann

YAKUTOVICH, M. V.

Mechanism of Plastic Deformation. (Report at a Session of the Physical
and Mathematical Sciences Department of the AN SSSR, Sverdlovsk).
AN SSSR (Physics Series) No 6, 843, 1937.

YAKUTOVICH, M. V.

"Rationalization of the System of the Basic Characteristics of the Mechanical Properties of Metals. (Report during a Session of the Physical and Mathematical Sciences Department of the AN SSSR, Sverdlovsk, May 1937). AN SSSR (Physics Series) No. 6, 1937, p 844

YAKUTOVICH, M. V., YAKOVLEVA, E. S., AVERKIYEV, V. S.

Apparatus for the Plotting of Texture Graphs.

Zav. Labor, No 8, 643, 1939.

YAKUTOVICH, M. V., KURNOSOV, D. G.

Method of Measuring Stresses in the Surface Layer of Metal Products.
Zav. Labor. No 10, 1939.

*Relation Between the Critical Cleaving Stress of Twinning and of Gliding (Slip) of Cadmium Crystals as a Function of Their Diameters. E. S. Yakovleva and M. V. Yakutovich (Zhur. Eksper. Teoret. Fiziki, 1940, 10, 1146-1150; C. Abs., 1941, 38, 2510).—[In Russian.] The critical stress of twinning τ_t and of slipping or gliding τ_g of cadmium single crystals was measured for crystals varying in diameter from 0.09 to 0.7 mm. On reducing the diameter of the crystals to 0.1 mm., it was found that the stress of twinning increased ninefold; that of gliding only two-fold. A qualitative explanation is given for the dependence of τ_t and of τ_g on the diameter of the crystal.

ASM-SLA   METALLURGICAL LITERATURE CLASSIFICATION

CA

9

Magnetic method for determining the microstructure and the mechanical properties of sheet steel. M. N. Mikheev and M. V. Yakutovich. *Skd* 5, 91-2(1945). — The microstructure and the mech. properties of sheet steel are detd. by measuring the coercivity of the tested material. The method is based on numerous results of comparing the coercivity with metallographic tests. The results showed that for sheet steel of the same make there is a direct relationship between the coercive force and the mech. and cryst. properties of the material. M. E.

YAKUTOVICH, M. V.

MARKELOV, V. V., YAKUTOVICH, M. V., VOSKRESENSKIY, V. N.

Dynamometer for Thin-Sheeted Lattices. Steel 5, 185, 1945.

YAKUTOVICH, M.V.

AVERKIYEV, V. S., KOLESNIKOV, G.N., PAVLOV, V. A., YAKUTOVICH, M. V.

Plastic Deformation and Destruction of Polycrystallic Metals During Elongaton. I. Apparatus for the Elongation of Wires in a Wide Range of Temperatures and of Deformation Rates. ZhETF 16, 1349, 1946.

YAKUTOVICH, M. V.

KOLESNIKOV, G. N., RYBALKO, F. P., YAKUTOVICH, M. V.

Simple Elastic Dynamometer for a Torsion Machine.   Zav. Labor.
No 13, 1947.

/3

Determination of Impact Strength of Thin Sheet Material. (In Russian.) Ya. S. Yakovleva and M. V. Yakutovich. *Zavodskaya Laboratoriya* (Factory Laboratory), v. 13, Oct. 1947, p. 1203-1206.

Test specimens, apparatus, and procedure for the above are described and diagrammed.

CA

Use of the recrystallization texture and grain coarsening for improvement of transformer steels. P. P. Rylnikov and M. V. Yakutovich (Ural. Filial Akad. Nauk S.S.S.R., Sverdlovsk). Zhur. Tekh. Fiz. 17, 1503-12(1947).— Specimens of transformer steel contg. 3.58 and 4.2% Si were subjected to cold-rolling (10-70% reduction), heat-treated at 700-1100°, and the coercive force and permeability detd. Optimum properties in 4.2% Si steel were obtained by 60-70% cold reduction, recrystn. at 1000° for 40-90 min., followed by 4-6% cold reduction and recrystn. at 1000° for 3-4 hrs.; this resulted in a grain size of 3-5 mm. and a coercive force of 0.24 oersteds. For 3.58% Si steel, the optimum treatment was similar, except that only 24-40 min. was required for the first recrystn.
H. W. Rathmann

CA

Effect of changes of the parameter of crystal lattice of supercooled austenite on the temperature of the beginning of martensite transition in carbon iron alloys. V. D. Sadovskii and M. V. Yakutovich.—Doklady Akad. Nauk S.S.S.R. 57, 309-7X (1947).—As the lattice parameter of austenite is changed from 3.56 to 3.60A. in alloys from 0%C to 1.52% C at 0°, the martensite point drops in a smooth curve from about 550° to about 100° for the high-C compn. The curve fits calcd. values except at the highest C content, where possible formation of cementite may be responsible for the deviation from the calcd. values.   G. M. K.

B

13

Influence of Coefficient of Work Hardening of Metals Upon Profile of Mound Surrounding Impression Obtained in Hardness Test. M. V. Yakutovich, B. A. Vandyshev, and E. E. Surikova. Henry Brutcher, Translation No. 2464, 10 pages. From *Zavodskaya Laboratoriya* (Factory Laboratory), v. 14, Mar. 1948, p. 338-343.

Materials studied were Al, duralumin, Cu, Armco iron, and two alloy steels. Describes experimental procedure. Presents results of study, their evaluation, and sources of error.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

18

A RESILIENT DYNAMOMETER FOR A TORSION MACHINE WITH AUTOMATIC RECORDING
OF THE COMPLETE DIAGRAM. F. P. Rybalko and M. V. Yakutovich.
(Zavodskaya Laboratoriay, 1948, vol. 14, Aug., pp. 1014-1015).
(In Russian).

A brief description is given of a dynamometer and the circuit used
for the electrical automatic recording of its readings when used
for torsion tests.   S.K.

YAKUTOVICH, M. V.

USSR/Physics   Dec 48
    Material Test Techniques

"Distribution of Cold Working Around A Conical Impression," F. S. Savitskiy, B. A.
Bandyshev, M. V. Yakutovich, Sverdlovsk Affiliate, All-Union Sci Res Inst of Metrol, 3½ pp

"Zavod Lab" Vol XIV, No 12

Conical Indentation was produced by pressure on a specimen of hardened and tempered steel
having a fine-grained and homogeneous structure. Diameter of the base of the indentation
was 4 mm, and hardness of the area around this was determined with a Vickers hardness
tester after mechanical and electrolytic polishing. Indentations were distributed radially
around the edge of the hole at intervals of one mm, and results are presented in the form
of lines of equal hardness. Similar tests were carried out on compressed specimens, and
results of these are presented in the same way and in relation to deformation.

PA 49/49T103

Formation of Cracks in Steel During the Martensite Transformation. (In Russian.) E. S. Yakovleva and M. V. Yakutovich. Zhurnal Tekhnicheskoi Fiziki (Journal of Technical Physics), v. 18, Jan. 1948, p. 71-74.

Formation of micro and macro cracks during tempering was investigated. It is shown that all cases can be explained by one of two schemes. Artificial crack formation according to one of the schemes was produced in small specimens of different carbon contents.

Residual Stresses in Carburized Steel Plates. Quenched from Below Ac. E. S. Yakovleva and M. V. Yakutovich. Henry Brutcher (Altadena, Calif.). Translation No. 2127, 1948, 7 pages. From Zhurnal Tekhnicheskoi Fiziki (Journal of Technical Physics), v. 18, no. 2, 1948, p. 207-210.
Previously abstracted from original source under title "Residual Stresses in Case-Hardened Steel Specimens, Quenched from Temperatures Below Ac."

539.379 : 548.0 : 539

1201.   Deformation of flat aluminium crystals.
RYBALKO, F. P. AND YAKUTOVICH, M. V. J. Tech.
Phys., USSR, 18, 915-19 (July, 1948) In Russian.—
Some Al crystals, after extension by 7-15%, exhibit
an orientation different from that of the original
crystal in a certain region. The crystal, as it were, is
divided into two parts differently affected by the
deformation. With increasing tensile strain the
region referred to becomes ever more sharply
delineated, and grows, to occupy in the end about half
of the crystal. The relative orientation is changed
towards an aspect approaching the formation of a
"mechanical twin," as previously observed by Elam
[Abstr. 691 (1929)].
                                                    A.

YAKUTOVICH, M. V.

USSR/Metals   Nov 48
   Steel, Silicon
   Stress Analysis

"Expansion of polycrystalline Silicon Iron (4.2% Si) Within the Temperature Range -195° to 800°C," G. N. Kolesnikov, E. S. Yakovleva, M. V. Yakutovich, Inst Phys of Metals, Ural Affiliate, Acad Sci USSR, Sverdlovsk, 7 pp

"Zhur Tekh Fiz" Vol XVIII, No 11

Expansion diagram of silicon iron shows los and high temperature types. Describes in detail state of diagram for various temperatures. Adduces temperature relationship, resistance to deformation, time deformation, proportional elongation, and sum of proportional and quasi-proportional elongations. Refutes the expression, suggested by F. F. Vitman, and V. A. Stepanov for relation of limits of yield to absolute temperature in wide interval of temperatures. Submitted 23 Apr 48

PA 18/49T92

Brit. Abs.

Distribution along the axis of the distortion of a test piece by torsion. M. V. Yakutovich and F. P. Rybalko (*C. R. Acad. Sci. URSS*, 1943, **40**, 227—229).—Curves show the distribution along the axis of the distortion by torsion of cylindrical test-pieces of steel tempered at 880°, and of 70 : 30 brass. For steel the max. distortion is 7 times, for brass only 1·7 times the mean. This is due to the difference in plasticity.   A. R. Densham.

YAKUTOVICH, M. V.

PA 11/49T79

USSR/Metals   Jul 48
      Stress Analysis
      Plastic Deformation

"Plasticity of Steel During Deformation by Tension
and Torsion," M. V. Yakutovich, F. P. Rybalko,
Inst of Metallophys, Ural Affiliate, Acad Sci
USSR, Sverdlovsk, 2 pp

"Dok Ak Nauk SSSR" Vol LXI, No 2

Determines maximum tensile and shear stresses for
E-10 steel and "Khromasil'," cooled to various
temperatures.   Plots results. Submitted 4 May 48.

                                        11/49T79

VAVILOVICH, M.V.

Chemical Abst.
Vol. 43 No. 8
Apr. 25, 1949.
Metals, alloys, and metallurgy

Mechanism of plastic deformation of
Vasil'ov, S.S. k

Formation and Expansion of Cracks in Hardened Steel Having a Heterophase Structure. (In Russian.) V. A. Pavlov and M. V. Yakutovich. Zhurnal Tekhnicheskoi Fiziki (Journal of Technical Physics), v. 19, Apr. 1949, p. 465-470.
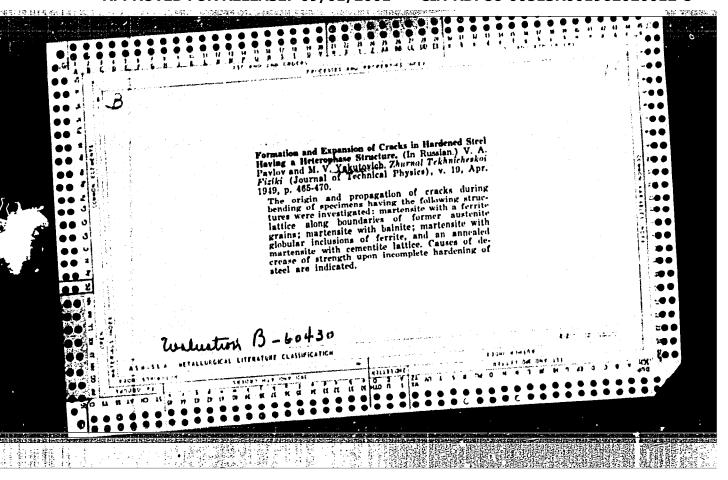
The origin and propagation of cracks during bending of specimens having the following structures were investigated: martensite with a ferrite lattice along boundaries of former austenite grains; martensite with bainite; martensite with globular inclusions of ferrite, and an annealed martensite with cementite lattice. Causes of decrease of strength upon incomplete hardening of steel are indicated.

Evaluation B-60430

METALLURGICAL LITERATURE CLASSIFICATION

1AB-133. Influence of Microfissures Formed During Hardening on Properties of Steel. (In Russian.) V. A. Pavlov and M. V. Yakutovich. *Zhurnal Tekhnicheskoi Fiziki* (Journal of Technical Physics), v. 19, Apr. 1949, p. 471-480.

Investigated for a steel with and without microfissures. Mechanical properties of both types, annealed to 200, 300, 400, 500, 600 and 700° C, were studied during application of torsional force. Presence of microfissures decreases values of maximum relative shear by 90% at annealing to 200° C. and by 25-30% at temperatures between 400 and 600° C. After annealing to above 650° C, plastic properties of both specimens are identical.

YAKUTOVICH, N. V.

Apr 49

USSR/Physics
    Steel - Torsion Tests
    Metallography

"Influence of Tempering Micro-Craks Upon the Mechanical Properties of Steel in Torsion,"
V. A. Pavlov, N. V. Yakutovich, Inst Phys of Metals, Ukrainian Affiliate, Acad Sci USSR,
10 pp

"Zhur Tekh Fiz" Vol XIX, No 4

Prepared two types of sepcimens of type 60C2 steel: (1) quenching-cracks, 120 - 130
microcracks per sq mm of slide surface and (2) without micro-cracks, with same metallograph-
ic structure and micre-hardness. Studies mechanical properties of both types of specimen
in torsion after tempering at 200, 300, 400, 500, 600 and 700° C. Showed that presence
of micro-cracks decreases maximum relative shear by 90% after tempering at 200°
and by 25 - 30% after tempering in 400 - 600° range. Reduction of stresses at
rupture (by 15 - 20%) was noticed ohly after tempering at 200°. After tempering
above 650°, properties of both groups of specimens are identical. Submitted 1 Dec 48.

PA 48/49T103